v 620.5
v.40

COAL AGE

With Which Is Consolidated
The "Colliery Engineer" and "Mines and Minerals"

INDEX TO VOLUME 40

January to December, 1935

NOTE—The articles and references in this index have been classified under leading subjects or topics, as far as practicable, and should be sought under such heads, which, together with all unclassified matter, are arranged alphabetically. Illustrated articles, or cuts standing by themselves are indicated by an asterisk (*). The subject matter of editorials will be found classified under the subject with which they deal and marked (e). Many titles of articles are abbreviated, the aim being to give prominence to important words.

Following is a list of the pages included in each issue of the volume, for convenience of reference:

	Pages
January	1-50
February	51-98
March	99-140
April	141-180
May	181-232
June	233-280
July	281-320
August	321-358
September	359-400
October	401-438
November	439-482
December	483-554

A

Accidents
Explosion in Gilberton Colliery 95
Kentucky blast kills nine 353
Monthly fatalities 138, 178, 230, 280 356, 398, 435, 480, 546
Severity record rather than frequency (e) 100

American Bituminus Retailers Assn.
H. E. Howard urges giving Guffey Law "fair chance" 473

American Chemical Society
Division of Gas & Fuel Chemistry meets in New York 278
Division of Gas & Fuel Chemistry symposium 243

American Institute of Mining & Metallurgical Engineers
Coal Division's program for meeting .. 428
New York sessions cover wide range of topics 127

American Mining Congress
Coal Division meets at Cincinnati 247
Coal utilization theme of St. Louis meeting of Coal Division 543
New equipment at Cincinnati exposition .*255
Pamphlet brings out value of Bureau of Mines 43
Practical Coal-Operating Men arrange convention program 166
Program committee under way 131
Program of Cincinnati convention and exposition *202
Washington meeting proposes program for revival of mineral industries 41

American Society for Testing Materials
Coal-test methods approved 178
Reports on coal problems 351

American Society of Mechanical Engineers
Fuel sessions to be held at meeting .. 468

Anthracite
A.I.M.E. discusses anthracite's position. 127
Anthracite week observed in Pennsylvania 468
Bootleg mining end urged by producers .*554
Chemistry opens new markets for anthracite tonnage (A.C.S. meeting) .. 243
Dragline excavators widen casting opportunities in stripping. R. D. Hall .. *25
Huber is appointed dictator of anthracite industry 313
Operators explore cost reduction roads in 1934 (review) *57
Production, monthly 90
Storage helps anthracite (e) 282
Stripping activity reaches new heights in 1934 .....*60
Tariff on Russian anthracite urged..... 540

Anthracite Conciliation Board
Decision upholds right of coal operators to discharge employees for bootleg mining 178
Anthracite engineers to meet 386

Anthracite Institute
Huber is appointed dictator of anthracite industry 313

B

Belgium
Research committee named 96

Bituminous Coal Labor Board
Members appointed 429

Bituminous Coal Research, Inc.
Dreams come true (e) 439

Blasting
Air shooting discussed at Coal Mining Institute meeting 39
Air shooting equipment at Standard mine*118
Face preparation discussion at American Mining Congress 248
Book reviews....217, 265, 303, 343, 381, 422, 463

Briquetting
History and developments in 1934 78

Bureau of Mines
Activities outlined by new director 137
Advisory Board named 166
New Alabama mines building to be erected 356
Permissible plates issued ..96, 126, 176, 233, 280, 316, 385, 470
Resumes services cut in past years due to increased appropriation 270
Sealing of coal mines reduces acidity of water flow. R. D. Leitch.....*323
Symposium on the relation of the coal industry to Bureau of Mines—Coal Mining Institute meeting 39

C

Canada
Modernization in maritime provinces ..*349

Central West Virginia Coal Mining Inst.
Annual safety day and first aid meet ..*387

Coal
American Society for Testing Materials plans investigations 540
Bootlegging (e) 321
Catalysts supreme (e) 402
Did worms de-ash? (e) 52
Role of pyrite (e) 282
Worms and fishes. A. E. Smith 436

Coal Age—historical summary 37

Coal, bituminous
Production, monthly 90
Revision of operating methods for efficiency in 1934 (review) 63

Coal Mining Institute of America
Report of annual convention 39

Codes
Adams plan for price control abandoned by Pittsburgh 45
Bituminous coal code to be studied by NRA 347
Bituminous code amendment to check price cutting proposed 45, 91
Bituminous price fixing not to be disturbed in code revisions 46
Bituminous producers start filing of statistics 46
Extension of the code should be pressed (e) 51
Flexibility in maximum hours necessary to coal industry (e) 2
Injunctions entered, information filed, against code violators 46, 94
Labor wins fight for bituminous code authority 91
Mine-car manufacturers' code approved by NIRB 127
Mine equipment builders' codes approved by NIRB 95
National Bituminous Coal Commission promulgating bituminous code 475
NRA and industry battle over price control 91
Operating results under bituminous code (tables) 53
Smokeless Code Authority elects officers 227
Committee of Ten—Coal and Heating Industries
Committees appointed 178
Compressed air—Lehigh Navigation Coal.*521
Concrete for mine use 164

Conveyors
Barnesboro conveyor system lowers overall costs. R. T. Todhunter *19
Clinton conveyor plan designed for maximum flexibility. I. A. Given.....*104
Conveyor mining brings new lease of life to Leckie Collieries. J. H. Edwards .*143
Longwalling thin seam at Eureka *7
Operation discussed at Coal Mining Institute meeting 39

Cutting and Cutting Machines
Advantages of heat-treated bits proved in two-year trial at Dresser Mine ... 32
Automatic spooler on reel truck promotes safety *35
Bit bucket designed for hard use....*426
Hard surfacing increases bit life. Walter Baum *411
Heat treatment of machine bits discussed at Indiana Coal Mining Institute 43
Leather boxes cut bit loss *33
Spring-type safety jack pipe *36

D

Diamond mine to reopen 398

Drainage
Bettering mine effluents (e) 100
Deacidification of mine water (e) 182
Deepwell turbine pumping solves drainage problem *377
Lehigh Navigation Coal *497
Dewatering overlying bed at southern anthracite mine. T. M. Dodson *330
Pressure grouting protects headings under creek bed at Pond Creek Pocahontas. *235
Scarbro pumping project reduces drainage cost and improves water supply. J. H. Edwards *109
Sealing methods at Dresser give protection against water breaks. I. A. Given*373
Stream pollution again an issue in Pennsylvania. H. N. Eavenson 195

E

Economics
Bids under NRA approved 352
Bituminous Coal Conservation Act begins to function *551
Bituminous Coal Conservation Act, district producer boards set up..... 552
Bituminous legislation still at National Coal Assn. committee 37
Coal-control bills offered in Congress.. 132
Coal equipment eligible for loans..... 428
Coal industry presses battle on economic front in 1934 (review) 53
Coal proposes electrification of farms as substitute for hydro program..... 42
Federal Housing Administration backs modernization loans 351
Federal Housing Administration booklet shows how to modernize 480
FHA rules on mining loans 389
Fuel war against Texas gas project and TVA 126
Gas loans for Illinois cities opposed by South Illinois Reciprocal Trade Assn 541
Government wins first Guffy Act test... 547
Guffey Act attacked by 63 coal companies 547
Guffey bill for regulation of bituminous coal (e) 181
Guffey-Snyder bill (e) 99
Guffey-Snyder bill discussed at A.I.M.E. meeting 127
Guffey-Snyder bill endorsed by Senate subcommittee 167
Hydro-electric government projects discussed at Coal Mining Institute meeting 39
Mine power plants may escape utility holding act 432
Mineral conservation program submitted by National Resources Board 38
Mining Congress proposes program for revival of mineral industries 41
Mineral planning report issued 90
National social insurance (e) 52
Report on Mineral Policy (e) 1
Scrip provision stay extended 90
Social security bill passes House..... 224
Social security bill signed 385
Social security insurance bill passed by Senate 305
Social security insurance program to be submitted to Congress 95
Thirty-hour week would boost nation's coal bill 96
TVA-coal and ice men fight in federal court 43
TVA urges construction of distribution systems by municipalities 42
Utility Holding bill assailed at House hearings 230
Walsh anti-chiseling bill 305

PUBLIC LIBRARY
DETROIT MICH.

Walsh's bill to impose NRA provisions on contractors supplying government dropped 390
White Sulphur conference on business recovery 37
Economics. See also Tennessee Valley Authority.
Electricity
American Mining Congress discusses power in the mine 250
Ammeter use extended to smaller motors. *537
Anthracite electrification trends. J. H. Edwards *283
Battery duty cut 60 per cent by cleaning tracks *382
Battery vs. cable reel locomotives under similar conditions. B. F. Grimm.... 327
Coal mass conducts current to bin level indicator *222
D.c. conversion equipment analyzed at Illinois Institute meeting *541
Detachable tips lengthen life of controller rings *164
Electronic tubes widen field of d.c. transmission *215
Fuse burnouts *35
How to determine battery costs. B. F. Grimm *417
Interpoles are adjusted by meter of 5 volt scale *34
Lehigh Navigation Coal electrification.. *514
Light signal circuit added to pneumatic hoisting signal *383
Line connection should be lower than entrance *345
Locomotive made into hoist for mine work *222
Locomotive tests prove value of automatic protection. B. F. Grimm *368
Parallel operation perfected by addition of relays *87
Placing feeders in pump-discharge column saves in installation cost *464
Portable converting unit *268
Power and equipment keep ahead of demands in 1934 (review) 70
Power factor improvement promotes greater efficiency. A. S. Biesecker.. *149
Primary starting of converter adopted to utilize automatic board..... *162
Rectifiers for mine use discussed at West Virginia Inst. 474
Redesigned hairpin connection offers greater protection *467
Renton mine increases voltage and saves power by moving generator sets forward. A. L. Lee *101
Rural Electrification Administration funds will help extension lines from coal plants 434
Safety nip box *36
Signal systems prevent errors in skip hoisting *298
Split-yoke ammeter test indicates accuracy 382
Starter broadens use of squirrel-cage motors *537
Synchronous motor for ventilating fan saves $1,000 per month *266
System for controlling acceleration..... *124
Table for short time overloading of self-cooled oil immersed transformers... 125

F

Financial reports of coal companies..... 550
First Aid and Mine Rescue
Artificial respiration by Nielsen method. H. W. Pye *339
Central West Virginia meet *387
Union Pacific Coal Co. holds first aid meet *348
Virginia State Safety day 471
West Virginia safety meets 432
Western Kentucky first aid meet 472
Forestry—Lehigh Navigation Coal..... *527
Freight Rates
Bituminous coal and coke rate increase. 223
Code authorities of Coal Section may absorb surcharges 227
Kentucky rates cut 276
Pennsylvania, Pittsburgh & Lake Erie and Baltimore & Ohio to eliminate surcharge 430
Rates to Philadelphia for anthracite reduced 277
Fuel
Colloidal fuel (e) 141

G

Grand Lake Coal Field
History of mining district *349

H

Harlan County Coal Operators' Assn.
Officers elected 549
Hazleton Mining Institute
Anthracite stripping discussed at meeting 91
Hoists and Hoisting
Clamshell hoist with extension for maximum lift *124
Locomotive made into hoist for mine work *222

I

Illinois Mining Institute
Boat trip and summer meeting 311
Officers elected *541
Operation and economics discussed at annual meeting *541
Illinois State Mining Investigation Committee
Commission named 90
Indiana Coal Operators' Assn.
Officers elected 550
Indiana Coal Mining Institute
Report of Terre Haute meeting 313
Terre Haute meeting discussed safety, use of hitch drill and heat treatment of machine bits 43

K

Knox Consolidated Mines
Mobile loaders average 330-350 tons per unit per shift. I. A. Given *3

L

Labor
Agreements stabilize bituminous operation in 1934 79
Anthracite Conciliation Board rules against wage agreements with other than United Mine Workers 91
Anthracite miners demand shorter week and pay increase 549
Appalachian agreement in full 477
Appalachian field workers strike 433
Appalachian pact extended two months.. 225
Appalachian wage negotiations broken off 273
Appalachian wage scale committee still in session (e) 402
Bituminous wage agreements extended (e) 181
Bonus system adopted at Union Pacific mines 98
Decisions, Division III—Labor Board 79, Division V—Labor Board 90 47
Decisions, Division I—North Labor Board 135
Decisions, Division I—South Labor Board 47
Holds hearings on code violations.. 90
Decision in western Kentucky attack on code wage scales held up by federal courts of appeals 48
Decision upholds right of coal operators to discharge employees for bootleg mining 178
Guffey-Snyder bill opposition..... 353
Guffey-Snyder bill tied up with strike threat 306
Harlan County scene of controversy over union organization campaign 48
Illinois judge rules against United Electric Coal Companies in controversy with Progressive Miners of America... 47
Labor should submit to restraints as well as management (e) 142
Lehigh Navigation Coal's industrial relations *531
Miners return to work under new agreements 549
Old age pensions 157
Progressive Miners' Union asks shorter hours and wage boost 135
Prorating curbs bootlegging 386
Scrip limitation again put off 126
Securing teamwork between men and management in mining. Carel Robinson 453
Thirty-hour week assailed by coal spokesmen 126
Time clocks for safety and efficiency discussed at American Mining Congress 253
Unemployment insurance and old age pensions (e) 1
United Anthracite Miners of Pennsylvania calls strikes at three collieries 48
United Anthracite Miners of Pennsylvania disband 548
United Anthracite Miners of Pennsylvana end strike 317
Violence marks labor upsets in different sections 434
Wage conference for Appalachian region to meet in Sept. 388
Wage rates for unionized bituminous fields in 1934 (with supplement of piecework rates) 79
Wagner-Connery labor act invalid says lawyers' report 435
Wagner-Connery labor bill approved by House 317
Wagner labor bill attacked 228
Wagner Labor disputes bill signed by president 352
What an industrial relations department can do for coal. F. A. Krafft..... 450
Law and Legislation
Bituminous Coal Conservation Act of 1935 (e) 360
Bootleg mining a menace 96
Coal trade and locality names protected by court 476
Guffey measure goes to Senate 223
Guffey-Snyder act challenged in two federal courts 429
Guffey-Snyder bill (e) 281
Guffey-Snyder bill passed by Congress.. 387
Guffey-Snyder bill—text of Bituminous Coal Conservation Act of 1935..... 387
Guffey-Snyder bill—text of new provisions 306
Maryland mining laws to be revised.... 126
Patman bill attacked by operators.... 347
Social security bill signed 385
Utah renews recovery act 176
Wagner Labor disputes bill signed by president 352
Lubrication
Mining lubrication. W. H. Luxton..... 436

M

Maintenance
Battery duty cut 60 per cent by cleaning tracks *382
Bearing pullers *383
Caliper for magnetic service *125
Car greasing equipment at Mary Helen mine *424
Check valve *301
Coal presses work on reducing equipment upkeep in 1934 (review).... *71
Cradle aids replacement of rope rollers. *382
Driving ball bearings 425
Finding capacity of pipe 125
Guide block for vertical pulleys *123
Haulage rope oiler *87
Keeping tire records for lower cost.... *346
Lehigh Navigation Coal *523
Lehigh Navigation reconditions burned shaft and erects water column..... 300
Lengthening conveyor belt life 89
Maintenance costs average 28 tons per man hour 165
Oiling shafts of vertical pulleys *36
Open gearing (e) 2
Operating data for two 40-ton locomotive units. Consolidation Coal Co..... 122
Oxyacetylene tank truck facilitates repairs *465
Pipe welds strengthened by electrical annealing *384
Repair machines before collapse (e).. 402
Rerailer *383
Reservoirs for babbitted bearings.... 467
Starting spikes *163
Steel ferrules prolong life of locomotive flues *35
Tire welding practice *218
Tool for bending eyes and hooks in bars. *269
Whitewash in mines (e) 401
Management
Checkboard to secure efficiency *344
Lehigh Navigation Coal *487
Lower production costs rest upon management and men (e) 440
Problems of management discussed at American Mining Congress 252
Securing teamwork between men and management in mining. Carel Robinson 453
What an industrial relations department can do for coal. F. A. Krafft..... 450
Mechanization
Air shooting equipment at Standard mine *118
Barnesboro conveyor system lowers over all costs. R. T. Todhunter *19
Bituminous field alive to new ideas and applications in 1934 (review)..... *63
Bonus system revised by Union Pacific Coal Co. 98
Canada's maritime provinces believe in modernization *349
Carbon Fuel Co.'s mechanical mine increases crew output 75 per cent. J. H. Edwards *191
Clinton conveyor plan designed for maximum flexibility in operation of four-room units. I. A. Given *104
Conveyor mining brings new lease of life to Leckie Collieries. J. H. Edwards.. *143
Conveyors on longwall at Eureka boost thin-seam output *7
Conveyor unit in first month produces 18,000 tons in Jewell Ridge mine... *207
Developments in mechanization discussed at American Mining Congress 249
Kathleen mechanization of loading started in 1922, now completed *240
Killarney adopts coal saws and raises quality *371
Modernization in little (e) 1
Mobile loaders at Knox Consolidated Mines average 330-350 tons per unit per shift. I. A. Given *3
New Harman mine latest and largest in Grundy field *455
Records of mechanized loading in 1934 (tables) 419
Rocky Mountain Institute discusses mechanization problems 173
Merchandising
Coal trade and locality names protected by court 476
A.I.M.E. discuss coal marketing..... 127
American Chemical Society investigates possible extension of coal markets... 278
Architectural contest boosts automatic coal heat *395
Gas outlet in Detroit sought 353
Lehigh Navigation Coal *533
Northern Coals advertising campaign... 391
Sampling factors discussed at A.I.M.E. meeting 127
Smokeless Automatic Heat Show reopens this month 386
Stoker manufacturers to cooperate with coal industry 540
Stoker sales advance in 1934..... 138
Mine Inspectors' Institute
Report of Beckley, W. Va., meeting... 309
Mineral Industries Conference
Illinois conference seeks new ways of using coal 275
Mining Methods
Barnesboro conveyor system lowers overall costs. R. T. Todhunter..... *19
Big Chief No. 10 puts out 1,200 tons daily *361
Borehole job featured by lead cable and supports *219

Carbon Fuel Co.'s mechanical mine revises methods and increases crew output. J. H. Edwards ..... •191
"Circle haulage" offsets small cars and low coal at Binkley Mining..... •286
Clinton conveyor plan designed for maximum flexibility in operaton of four-room units. I. A. Given..... •104
Conveyor mining brings new lease of life to Lecke Collieries. J. H. Edwards.. •143
Conveyor unit in first month produces 18,000 tons in Jewell Ridge mine.... •207
Conveyors on longwall at Eureka boost thin-seam output ..... •7
Driving headings under creek discussed at West Virginia Inst. 473
Hitch drilling speeds entry timbering in Indiana ..... •237
Killarney adopts saws and raises coal quality ..... •371
Lehigh Navigation Coal..... •489
Mechanical loading plan at Knox Consolidated Mines assures high tonnage. I. A. Given ..... •3
Mechanization of loading at Kathleen mine ..... •240
Placing lead lined pipe in 560 ft. drill-hole ..... •220
Safety and efficiency at Springdale go hand in hand ..... •441

Mining Society of Nova Scotia
Report of annual meeting ..... •349

N

National Bituminous Coal Commission
Members appointed by President 430
Membership increased to nine 167
Starts district organization ..... •475

National Coal Association
Bituminous legislation still in committee. 37

National Coal Board of Arbitration
Decisions on prices 171
Election of members and organization.. 137

National Industrial Recovery Act
Extension faces fight for passage in Congress 227
L. J. Martin heads NRA 385
No time for tears (e) 233
Recovery Board reorganized ..... •171
Skeletonized NRA organized headed by J. L. O'Neill 316
Supreme Court rules against NIRA.... 271
Two-year extension asked by Roosevelt 132

National Resources Board
Report of planning committee for mineral policy 90
Report on mineral policy (e) 1
Submits program for mineral conservation 38

National Safety Council
Mining Section of Safety Congress and Exposition 469
Sessions on mine safety 397

Natural Gas
Coal interests propose taxes on natural gas sales 228
Detroit to have natural gas line 431
Illinois gas tax to be reconsidered 274
Texas gas line protested 172
Texas gas project fought by bituminous industry 126

New Equipment
Bearings ..... •49
Air nozzles ..... •358
Bearings 400
Belt, hot material ..... •140
Belt, oil proof 438
Belt, oil-resisting 400
Belt, rubber 437
Blasting material 140
Blueprint paper 400
Bolt, rib ..... •438
Breaker 400
Bucket, dragline ..... •232
Bucket, grab ..... •231, •358
Cable, welding 482
Cap lamp ..... •140
Cap, safety ..... •179
Carbon-monoxide alarm ..... •139
Casting grip ..... •139
Casting metal ..... •357
Cincinnati exposition of new equipment. •255
Clamp, strain ..... •399
Column, water ..... •320
Compressor, air cooled portable ..... •232
Compressor, portable ..... •437
Conductor terminal ..... •358
Conveyor, unit ..... •50
Coupling ..... •437
Coupling, compression ..... •482
Coupling, flexible 358
Coupling, improved 400
Coupling, magnetic clutch 438
Crusher, laboratory 318
Cutter, belt 400
Drill, churn 399
Drill, right angle ..... •318
Drill, wagon ..... •231
Circuit breaker 139
Compensator, automatic ..... •320
Electricity
Disk-type, electric motor brake 50
Dynamic balancer, portable ..... •50
Flood lights ..... •482
Hook-handle guards ..... •139
Indicator, phase-rotation ..... •482
Insulation 49
Insulation, rubber 232
Insulator ..... •179
Motor, seal clad ..... •179
Motor, variable drive ..... •320
Motor, weatherproof ..... •49
Motorized reducers ..... •180
Oil circuit breaker ..... •319
Panelboards 400
Relay ..... •319
Switch ..... •438
Switch, safety ..... •232
Switch, spring-return ..... •50
Switches, time ..... •481
Transformer, distribution ..... •320
Voltage adjuster ..... •320

Electrode, hard surfacing 399
Excavators ..... •357
Furnace, fusion ..... •319
Furnace, oil ..... •399
Goggle ..... •437
Goggles, hot workers' ..... •139
Grease in cartridges 49
Heater, water ..... •280
Hose, air ..... •232
Hose, suction ..... •358
Jack, power ..... •319
Jack, pulling ..... •139
Loading boom; table ..... •481
Locomotive, diesel 231
Locomotive with Ford engine ..... •438
Lubricating unit 180
Manifold ..... •481
Meter, air velocity ..... •357
Meter, time 400
Motor, convertible 358
Pipe tools ..... •482
Planer, rotary 140
Printing, dry 231
Puller, hoist ..... •231
Pulley, cast ..... •438
Pulverizer ..... •438
Pumps, centrifugal ..... •357
Pump, close coupled ..... •180
Pump, high head 358
Pump, multi stage ..... •399
Pumps, open impeller 482
Pump, propeller ..... •140
Retainer, safety car ..... •180
Rubber, synthetic 140
Rubberizing 399
Screen, testing ..... •399
Screen, vibrating ..... •49, •139
Shaker ..... •358
Sharpener, drill ..... •399
Sheaves, rubber faced 320
Shovel, convertible ..... •232
Shovel dipper ..... •437
Shovel, stripping ..... •180
Sinkers, light 400
Splice, vulcanized 319
Spotter, motorized ..... •50
Switches 400
Tape, mending and electric 140
Trail cars ..... •179
Transmission, variable speed ..... •482
Trap, steam ..... •437
Trip lamp ..... •140
Trucks ..... •438
Truck, hand 232
Valves ..... •179
Valves, plug type 358
Valves, rising stem 180
Vibrator 357
Washer, coal ..... •318
Welding aids 399
Welding equipment ..... •231
Wire, wedge 357
New River Coal Operators Assn.
Elects officers 46
Norfolk & Western Ry.
Virginia coal land to be developed 428

Notes from Across the Sea
Belgium—Divides its mines into groups of gassy and slightly gassy, etc. 462
Belgium—Methane poisonous or not... 462
Belgium—"Pure coal" for electrochemical purposes 380
Germany—Apparatus for filtering dust from air 216
Germany—Bin level indicator ..... •160
Germany—Kolinite from lignite coal .. 120
Germany—Machinery used in mines .. 342
Germany—Silicosis 216
Germany—Steel belts for conveyors 120
Germany—Time schedule for Saar mine. •120
Great Britain—Aerex mine fan 462
Great Britain—Bottom belt conveyor .. 120
Great Britain—Carbon dioxide applied to the cutter bar 422
Great Britain—Carbon monoxide will disappear in oxidized damp coal 161
Great Britain—Concreted steel for construction 30
Great Britain—Cutting water gage while receiving original ventilation current 160
Great Britain—Hazard of methane and firedamp 302
Great Britain—Iodine in coal 160
Great Britain—Pyrites, lead, copper, zinc and arsenic in coal 160
Great Britain—Reduce dust from blasting 342
Great Britain—Silicosis 264
Great Britain—Suffocation from gas in mines 30
Great Britain—To-min process of briquetting ..... •216
Holland—Briquets made without binder 422
Regulation discharge of refuse from jig 30
Scotland—Anthracitization generally involves a decrease in ash percentage . 462
Upper Silesia holes in pillars to replace crosscuts 160

O

Obituary
Briggs, Henry 398
Button, Seward 136
Campbell, James R. ..... •396
Campbell, Thomas D. 229
Carr, U. U. 136
Conrow, Robert W. 398
Dick, James C. 277
Daniels, George P. 317
Dyson, C. H. 136
Fancher, Arthur N. 136
Faust, Leslie L. 136
Fletcher, Frank L. 398
Fullington, Ashley 277
Galloway, James T. 277
Golden, Chris J. 317
Hammond, Horace ..... •546
Hitchman, Edward T. 229
Hughes, Edward 136
Humphrey, John M. 98
Iselin, Adrian A. 136
Jones, George M. 172
Leslie, E. H. 96
Lucas, Alex G. 229
Lumaghi, Joseph D. 48
Luther, Edwin C. 398
Macdonald, John M. 317
Maloney, A. J. ..... •277
McQuade, Thomas P. 48
Meguire, Kenneth U. 171
Morris, John E. 435
Packard, Mark 277
Patterson, George S. 172
Pearson, J. Pugh 48
Poole, H. M. 398
Price, John 398
Rend, Joseph P. 277
Robinson, Lucius W. 398
Shannon, W. E. 398
Sherrod, Benjamin F. 172
Smart, Joseph R. 48
Smith, Charles B. 317
Smith, Kirtland M. 172
Suender, E. H. ..... •476
Templeton, John A. 277
Throop, Benjamin H. 277
Toulmin, Priestley 136
Walling, Elmer E. 229
Watts, Morris 277
White, David 137
Williams, Morris 137
Wood, George R. 554
Woods, Philip P. 172
Yerkes, Stephen L. 48

Oklahoma fields mapped 430

Personnel Changes
Albright, Charles L. 431
Aldridge, A. B. 170
Arnold, Merrill 550
Badger, J. G. 273
Baker, Thomas S. ..... •431
Barbieux, C. F. 131
Barnes, A. R. 431
Bedwell, B. H. 273
Beisel, A. R. 316
Bockus, C. E. 273
Bonnyman, James 226
Bowling, J. H. 131
Boylan, John 396
Brady, William J. 431
Bramlette, S. A. 274
Brooks, H. M. 316
Brown, C. L. 472
Brown, Hugh J. 94
Cabell, C. A. 472
Canon, Byron H. 131
Carmody, John M. 396
Carroll, D. J. 273
Chandler, G. W. 431
Clay, M. K. 131
Clifton, J. B. 431
Clore, Ralph H. 172
Close, Lewis R. 94
Cooke, W. H. 46
Costner, T. E. 431
Craddock, C. D. 94, 431
Crichton, W. G. 273
Cunningham, Howard 131
Curtis, Dr. Foster J. 549
Davis, W. E. 131
Davis, W. M. 131
Dayton, M. R. 131
DeBardeleben, Prince 316
Dickinson, John L. 472
Donnelly, Joseph 431
Doolin, John R. 472
Edmundson, Ray 131
Edwards, J. H. 396
Eggleston, O. J. 550
Elgin, William J. 226
Elkin, H. H. 431
Ellis, Wayne P. 396
English, H. K. 131
Enzian, Charles 431
Evans, Evan 396
Fitz, George P. 131
Flynn, Edward M. 131
Francis, James D. 94
Garland, Frank 226
Gebhart, B. R. ..... •550
Gentry, Kenna 431
Gilbertson, H. S. 396
Gillespie, Milt 131
Gilliam, James R., Jr. 316

Gore, Fred E. 226
Graham, J. H. 352
Gregg, Robert 94
Gross, R. H. 226
Haddock, John C. 226
Hager, Robert B. 431
Hamill, C. A. 472
Hamor, William A. 316
Hardy, S. B. 131
Harmon, T. C. 131
Haymond, Thomas S. 316
Hayward, Nathan 273
Heed, Thomas D. 273
Henthorne, H. A. 316
Herres, Cetto 273, 550
Hessler, John 170
Hill, R. C. 550
Hines, Ralph J. 273
Holmes, Calvin 550
Homan, H. S. 316
Hood, O. P. 352
Hosmer, S. B. 316
Hull, D. D., Jr. 94
Humphries, E. P. 396
Hunt, J. A. 472
Hunt, W. A. 316
Jackson, Charles F. 352
Jamison, Ralph E. 131
Jenkins, R. L. 431
Johnson, J. E. 131
Jones, Lawrence B. 226
Jungbluth, Karl 226
Kelly, Creed P. 226
Kennedy, D. C. 472
Keyser, Paul F. 170
Kirkpatrick, R. R. 316
Knode, R. H. 550
Koepler, W. E. 316
Kosik, Michael J. 396
Kyle, John 431
Lake, J. F. 273
Lamarr, Silas 170
Landgrebe, Karl 316
Loughlin, Gerald F. 472
Lumaghi, Louis F., Jr. 131
Manley, Bertram P. 94
Marks, John B. 274
Marshall, R. S. 550
Martin, Fred S. 226
Maxey, Paul R. 131
May, J. Eugene 170
McAlpine, D. C. 431
McFarlane, L. C. 549
McGuire, Augustine 431
McLaughlin, Cornelius 431
McLaughlin, J. D. 472
McLellan, C. N. 274
Meadows, C. M. 431
Medaris, F. M. 131
Miller, E. F. 472
Miller, William W. 131
Mitchell, L. W. 431
Mitchell, W. C. 472
Moore, William 431
Morrow, J. D. A. 131
Muir, D. D., Jr. 550
Mull, J. M. 431
Murray, Dr. A. L. 550
Neel, C. B. 274
Newhall, M. L. 94
O'Brien, T. J. 431
Orr, N. H. 550
Osler, J. L. 274
Overton, A. G. 226
Parrish, Swift 131
Patterson, G. Dennison 226
Peabody, J. P. 46
Perry, John L. 94
Porter, J. W. 550
Pugh, E. S. 550
Ramsay, Erskine 431, 550
Reese, Asa W. 226
Renner, Krik 550
Rhinehart, N. P. 431
Richardson, C. F. 226
Richardson, Forrest 431
Ritter, E. E. 352
Ritter, W. M. 352
Rose, C. B. 131
Rubert, C. D. 396
Ryding, Herbert 316
Salvati, R. E. 316, *431
Sandridge, William 431
Sands, John W. 472
Sanner, Louis 131
Schenler, William 274
Scott, F. S. 550
Seckendorff, E. Q. 94
Sellers, J. J. 274
Sharpe, Richard 226
Showalter, A. D. 274
Showalter, H. W. 274
Sienknecht, H. 131
Silcott, A. E. 550
Smaltz, John H. 226
Smith, A. D. 316
Smith, Charles B. 352
Smith, James B. 431
Snider, J. Noble 550
Snoderly, H. H. 550
Snodgrass, B. W. 352
Sterner, F. E. 396
Stockett, Thomas R. 431
Stone, C. M. 170
Strange, Charles H. 431
Stripe, Carl 94
Sullivan, John T. 396
Sweet, Charles N. 274
Sweet, F. A., Jr. 431
Sweet, Victor W. 274
Sweet, W. H. 274
Taylor, J. Edward 472
Templeton, Charles N. 316
Thomas, Darius A. 431
Thomas, Howard J. 274
Thompson, A. E. 316
Thomson, William 131
Tierney, J. L. 550
Vincent, M. D. 226
Vogtle, A. W. 131
Warden, Henry F. 352
Ware, Louis 472
Warriner, J. B. 550
West, R. T. 550
Wickham, T. H. 431
Winn, R. W. 273
Woods, L. E. 472
Wright, C. W. 352

Pick rack prevents loss *88
Pocahontas Mechanical and Electrical Institute
Meeting and exhibit of mining equipment 397
First meeting in Bluefield, W. Va.; officers listed 48

Power Generation
American Mining Congress discusses power in the mine 250
Mine power plants may escape utility holding act 432
Somers mine invests in power plant to pay out in three years *115
West Virginia Coal & Coke power plant to return investment in four to five years. J. H. Edwards *365

Preparation
Aerial tramway used to concentrate tippling operations at Highcoal *151
Bell & Zoller Coal & Mining Co.'s new preparation plant *214
Big Chief No. 10 puts out 1,200 tons daily *361
Bituminous preparation drives for higher quality and greater efficiency *75
Cleaning coal discussed at Illinois Institute meeting 311
Coal processing (e) 359
Column flow minimizes breakage in loading railroad cars at Lehigh Navigation breakers *538
Conveyor belting constitutes dust seal for screens *384
Delta Coal Mining reflects experience at other Sinclair plants *188
Developments in 1934 reflect drive for higher quality and greater efficiency in 1934 in anthracite and bituminous industries *57, *75
Dewatering coal after wet washing. Barley & Parmley ..... *407; pt. 2 458
Face preparation discussion at American Mining Congress 248
Fidelity's wet preparation lifts handicap on small coal *197
Fine-coal cleaning discussed at American Mining Congress 251
Fundamentals of coal cleaning presented at Illinois Institute meeting *541
Indicator shows whether bin is full or empty *88
Killarney adopts coal saws for face preparation and raises quality *371
Lehigh Navigation Coal *502
Lehigh Navigation Coal uses pure wash water and lowers breaker maintenance costs *204
New plant construction 37, 137, 224, 270, 305, 347, 385, 432, 474, 548
New preparation facilities in 1934 77
Puritan tipple designed for later removal to new mine. Samuel Tescher *16
Sulphur in coal discussed at Illinois Institute meeting *541
Thick Freeport prepared for meticulous market at Union Collieries *10
Vacuum cleaning (e) 281
Van Lear plant's new tipple. J. H. Edwards *413
Washery control problems discussed at Indiana Coal Mining Institute 313
Washing cappy coal (e) 99
Pulverized coal, domestic 356

Pumps and Pumping
Belts on gathering pumps demonstrate advantages *89
Deepwell turbine pumping solves drainage problem *377
Scarbo pumping project reduces drainage cost and improves water supply. J. H. Edwards *109
Turbine pump removes water from abandoned workings 218

R

Railroads
B. & O. R.R. adds two high speed locomotives, coal burners 270

Refuse Disposal
Belt conveyors feature refuse systems at Consolidated *201
Dump fires (e) 401
Fills 110 ft. wide made possible by Hudson Coal disposal equipment *147
Union Collieries solves problems of refuse disposal and preparing Thick Freeport for market *10

Research
American Chemical Society investigates possible extension of coal markets .. 278
Bituminous Coal Research to undertake studies 277
Chemistry opens new markets for anthracite tonnage (A.C.S. meeting) 243
Coal researches in progress or completed in 1934 or planned for 1935 .. 67
Opportune (e) 51
Research and resurvey (e) 234
Research studies launched 386

Rocky Mountain Coal Mining Institute
Report of Denver meeting 173

Roof Control
Bumps in coal mines discussed at A.I.M.E. meeting 127
Hitch drilling speeds entry timbering in Indiana *237
Springdale's methods of removing pillars *441
Treated timber (e) 234

S

Safety
Accidents to snappers (e) 321
A.I.M.E. hold mine-safety session 127
Alabama mine laws amended for safety 352
Artificial respiration by Nielson method. H. W. Pye *339
Automatic spooler on reel truck promotes safety *35
Bad light hazardous (e) 281
Cooperative mine safety classes held in Terre Haute, Ind. 166
Efficiency and safety at Springdale go hand in hand *441
Efficient management and safety closely related say mine inspectors 309
Entry timbering in Indiana with the hitch drill for low cost and safety .. *237
Explosives Engineer magazine makes safety awards 305
Hinged guard protects toes 219
Holmes Association certificates presented 166
Hooks for safety rope hung on side of cars *267
Illinois Institute discuss safety on trip. 311
Indiana Coal Mining Institute discusses safety at meeting 43
Knox Consoldated Mines show wide safety gains. I. A. Given *183
Lehigh Navigation Coal *518
Lost-time injuries board with attractive appearance *424
Machine cleans safety lamps quickly .. *536
Mine safety results in 1934 close to 1933 record. J. W. Finch 73
National Safety Council discusses mining safety at Louisville, Ky. 469
New car blocks identified by serial numbers *301
Nip box promotes *36
Ohio has high safety record 395
Rock-dusting (e) 141
Safety in mechanized operations discussed at Coal Mining Institute 39
Safety record better despite increasing hazards. D. Harrington *295
Sahara plan discussed by Illinois Mining Institute *541
St. Clair Coal Co. finds that safety lies in safety minded men *13
Silicosis prevention (e) 321
Spark and heat shields for gas cutting. *221
Spring type safety jack pipe *36
Threatened men (e) 142
Time clocks for safety and efficiency discussed at American Mining Congress. 253
Unshielded lamps provide better view of track *346

Sales Agencies
Alabama Coals organized 347
Anthracite agency elects temporary officers 97
Anthracite independents plan agency .. 48
Formation of more agencies considered . 305
Sales agencies are not preempted by government bureaus (e) 440
Shaft heating system at Pond Creek Pocahontas *289
Silica, explosive (e) 401
Smoke evil for aviation can be abolished . 435
Smokeless Coal & Industrial Exposition
New River & Winding Gulf Electrical & Mechanical Institute sponsors exposition 471

Smokeless Coal Operator's Assn. of W. Va.
Elects officers 46

South Wales Coal Owners' Assn.
Start miners' pension fund 226

Southern Appalachian Coal Operators' Assn.
Officers elected 550

Stabilization
Bill to stabilize anthracite would limit production 229
Bituminous Coal Conservation Act of 1935 (e) 360

Stoker Manufacturers Assn.
Officers elected 47

Stokers
Anthracite stokers for home use 432
Exhibits of stokers in New York *227
Laboratory tests performance of soft coal in stokers 468
Sales continue to rise 430, 546
Use of coal stokers urged to curb smoke evil 317
Stores—Lehigh Navigation Coal *529

Stripping
Anthracite and bituminous activity reaches new heights in 1934 ..... *60
Anthracite methods discussed at Hazleton Mining Institute meeting 91
Car transporter strips two seams simultaneously at Huntsville-Sinclair mine *113
"Circle haulage" increases loading unit utility at Pyramid *21
Delta Coal Mining reflects experience at other Sinclair plants *188
Dragline excavators widen casting opportunities in anthracite strippings. R. D. Hall *25
Lehigh Navigation Coal *495

Supplies
Supply loss reduced by prop hole *466
Surveying
Rivers of rock (e) 439

T

Tariffs
Coal import tariffs proposed 227
Taxes
Alabama coal taxes reduced..... 554
Changes in districts made by Coal Commission 167
Coal bill provides $4 duty 96
Tennessee Valley Authority
Amended bill goes to conference 348
Bill passed by Congress 385
Coal and ice men continue fight in federal court 43
Coal industry directs broadsides against TVA 126
Coal interests attack TVA 228
Constitutionality of power policy to be tested in Supreme Court 428
Developments in power plans 97
Judge declares contract with Alabama Power Co. illegal 172
Looks to Kentucky for power outlet.. 540
McSwain bill tabled by House Military Affairs Committee 274
Memphis signs power contract..... 540
Supreme Court test act 540
Urges construction of distribution systems by municipalities 42
Timbering
Hitch drill use discussed at Indiana Coal Mining Institute 43
Transportation
American Mining Congress discusses transportation 254
Auxiliary cable throw for switches speeds haulage *466
Battery vs. cable reel locomotives under similar conditions. B. F. Grimm.... 327
Brake adjustments made easy by improving rigging *427
Brake blocks changed with clips *269
Car-change spillage caught by trolley-hung basket *299
"Circle haulage" offsets small cars and low coal at Binkley Mining *286
Creosoted ties show profit at Consolidation Coal 98
Drag stays off ties until needed *344
Electric locomotive moves cars in Kathleen yard *34
Gathering load with battery locomotives at Jackson Hill mines *333
Holding track on hills *87
How to determine battery costs. B. F. Grimm *417
Indicator shows car position on long incline *163
Keeping sand pipes free from water 87
Lehigh Navigation Coal *506
Lehigh Navigation improves haulage record. I. A. Given *403
Locomotive finished with aluminum paint*269
Locomotive made into hoist for mine work *222
Locomotives modernized by equalizers ..*165
Locomotive tests prove value of automatic protection. B. F. Grimm....*368
Operating data for two 40-ton locomotive units Consolidation Coal Co. 122
Rail bonding is backed by an emergency return *123
Rerailer *383
Safety rope laid in hooks on sides of cars *267
Skip hoisting errors prevented by signal systems *298
Snow plow *425
Spotting a trolley frog *299
Steel cars rebuilt with spring bumpers *86
Steel ferrules prolong life of locomotive flues *35
Straight rail kickback of hinged type sorts cars *220
Streamlining mine roadways (e) 440
Switch to permit placing two cars *267
Tie stops cutter derailments *465
Tire welding practice *218
Transfer chutes facilitate continuous loading *220
Transfer switch eases change from trolley to trolley *267
Treated ties prove worth in Royalton and Energy mines *245
Trolley pole with auto wheel base *301
Trolley support shift with track.....*383
Trolley wire installation—pipe employed for smooth curve 125
Unshielded lamps provide better view of track *346
Treated timber—Lehigh Navigation Coal.*489

U

United Mine Workers
Appalachian pact extended two months 225
Appalachian wage negotiations broken off 273
Conference on new Appalachian agreement 135
Demands for increased wages and shorter hours rejected 177
Officers of United Anthracite Miners jailed for contempt of court 178
Settlement of wages and hours dispute with Virginia anthracite companies . 226
Utah Coal Operators Assn.
Stage coal exhibit at State Fair 480
Utilization
A.I.M.E. discusses at St. Louis meeting 543
Coal a nitrogenizer (e) 359
Coal exhibit at Utah State Fair 480
Dept. of Mining & Metallurgical Engineering to hold course on coal utilization 280
Illinois University stages course in coal utilization 315
Mineral Industries Conference seeks new ways of using coal 275
University of Illinois offers short course in coal utilization 135
Waste coal products (e) 321

V

Ventilation
A.I.M.E. completes ventilation code 127
Aero-mechanics sheds new light on ventilation of mines *447
Air jets used with metal pipe for ventilation *537
American Mining Congress discusses safety and ventilation 253
Cape Breton ventilation losses (e) 322
Door designed to reduce air losses *123
The fan in mine ventilation. W. J. Montgomery *291
How to check ventilation practices. W. J. Montgomery pt 3 .....*211
Keep intakes and return openings apart (e) 359
Lehigh Navigation Coal *509
New fan and shaft improve ventilation at two Union Pacific mines. C. E. Swann *23
Synchronous motor for ventilating fan saves $1,000 per month *266
Tight shafts and drifts (e) 51
Union Pacific gives records of new ventilating system 156
Ventilation economies discussed by Coal Mining Institute 39
What fan tests show in mine ventilation. W. J. Montgomery.....*335

W

Washington University, College of Mines
Mining Institute continued 48
Wastes, industrial
Stream pollution again an issue in Pennsylvania. H. N. Eavenson 195
Welding
Electric arc-welder adapted to mine use.*426
Spark and heat shield for gas cutting .*221
Tire welding practice *218
West Virginia Coal Mining Inst.
Conveyors, rectifiers and labor relations discussed at Beckley meeting 473
Officers elected at annual meeting 473
Program for Beckley meeting 434
Whitewash (e) 2
Wilkes-Barre joint meeting of engineers
Anthracite comeback predicted at meeting 476
Winding Gulf Operators' Assn.
Elects officers 47

MINE AND COMPANY INDEX

A
Alleghany Pittsburgh Coal. Safety and efficiency at Springdale go hand in hand*441
American Rolling Mill Co. To resume operations 178
Anchor Coal Co. Aerial tramway used to concentrate tipple operations *151
Appalachian Coals. Board of directors meets at Cincinnati 476
Industrial burning equipment 352
Will continue operations 551

B
Barnes Coal Co. Conveyor system lowers over all costs. R. T. Todhunter ... *19
Bell & Zoller Coal & Mining Co. Clamshell hoist with extension for maximum lift *124
Indicator shows whether bin is full or empty *88
New preparation plant *214
Spring type safety jack pipe *36
Binkley Mining. "Circle haulage" offsets small cars and low coal.....*286
Hitch drilling speeds entery timbering.*237
Turbine pump removes water from abandoned workings 218
Bituminous Coal Research Inc. Officers elected 45
Black Diamond Coal Mining Co. Developing new mine 396
Bledsoe, Walter, & Co. Advantages of heat treated bits proved in two year trial at Dresser mine 32
Drag stays off ties until needed *344
Dresser sealing methods give protection against water breaks. I. A. Given ..*373
Hitch drilling speeds entry timbering .*237
Portable converting unit *268
Wide application found for compressor unit *300

C
Carbon Fuel Co. Changes in methods increase crew output 75 per cent. J. H. Edwards *191
Unshielded lamps provide better view of track *346
Clearfield Bituminous Coal Corp. Adds boiler to power plant 270
Clinton Coal Co. Conveyor plan designed for maximum flexibility in operation of four room units. I. A. Given ..*104
Connell Anthracite Mining Co. May be sold to Bernice Coal Co. 98
Consolidation Coal Co. Belt conveyors feature refuse systems *201
Creosoted ties show profit 98
Five-year maintenance cost of super locomotive totals one-half cent per ton.. 122
Preparation centralized in Van Lear plant. J. H. Edwards *413
Reorganization plan 270
What can industrial relations departments do for coal? F. A. Krafft ... 450

D
Delaware, Lackawanna & Western Coal Co. Trade name protected by court 476
Delta Coal Mining Co. Stripping and preparation reflect experience at other Sinclair plants *188
Diamond Coal Co. Brake blocks changed with clips *269
Indicator shows car position on long incline *163

E
East Boston Coal Co. RFC loan approved . 468
Elk Horn Coal Corporation. C. W. Watson appointed trustee 541
Eureka Coal Co. Conveyors on longwall boost thin seam output *7

F
Franklin County Coal Co. Treated ties show savings in rooms as well as entries.*245
Fremont County Coals. Organized at Florence, Colo. 435
Frick Coke Co. Exchanges coal in Washington County for acreage in Fayette County 46

G
Gage, Robert Coal Co. Big Chief No. 10 adds 1,200 tons daily output to Michigan production *361
Gauley Mountain Coal Co. Automatic spooler on reel truck promotes safety *35
Beltson gathering pumps demonstrate advantages *89
Equalizers modernize locomotives *165
Line connection should be lower than entrance *345
Steel cars were rebuilt with spring bumpers *86
Glen Alden Coal. Electrification trends. J. H. Edwards *283
Glendora Coal Co. Hitch drilling speeds entry timbering *237
Great Southern Morgan Coal & Coke Corp. To operate in Richmond field 396

H
Hanna Coal Co. Fairpoint makes new tonnage record 551
Parallel operation perfected by addition of relays *87
Rail bonding is backed by an emergency return *123
Harman Coal Corp. New mine latest and largest in Grundy field *455
To begin shipments from Buchanan County 46
Hart Coal Corp. Reorganization plan approved 47
Houston Collieries Co. Battery vs. cable reel locomotives under similar conditions. B. F. Grimm 327
How to determine battery costs. B. F. Grimm *417
Locomotive tests prove value of automatic protection. B. F. Grimm *368
Hudson Coal Co. Aluminum paint on mine locomotives *269
Electrification trends. J. H. Edwards ..*283
Refuse-disposal system permits fills 110 ft. wide *147
Huntsville-Sinclair Mining Co. Car transporter strips two seams simultaneously at Mark Twain mine *113

J
Jackson Hill Coal & Coke Co. Gathering with battery locomotives *333
Jewell Ridge Coal Corp. Car-change spillage caught by trolley hung basket *299

First conveyor unit produces 18,000 tons per month *207

K

Killarney Smokeless Coal Co. Adoption of coal saws raises coal quality.....*371
Kingston Coal Co. James H. Pierce & Co. take over management 45
Receivers named 315
Receivers plan to refinance company .. 386
Knox Consolidated Coal Corp. Leather boxes cut bit loss *33
Nip box promotes safety *36
Pick rack prevents loss *88
Safety gains reflect cooperation of management and men. I. A. Given *183
Koppers Coal & Transportation Co. Battery duty cut 60 per cent by cleaning tracks*382
Placing feeders in pump discharge column saves in installation cost *464

L

Leckie Collieries Co. Conveyor mining brings new lease of life. J. H. Edwards *143
Straight rail kickback of hinged type sorts cars *220
Leckie Smokeless Coal Co. Steel ferrules prolong life of locomotive flues *35
Lehigh Navigation Coal Co. Ammeter use extended to smaller motors *537
Air jets used with metal pipe for ventilation *537
Column flow minimizes breakage in loading railroad cars at Lehigh breakers *538
Compressed air *521
Electrification *514
Electrification trends. J. H. Edwards....*283
Forestry *527
Haulage record improved. I. A. Given .*403
Historical *485
Industrial relations *531
Lehigh Navigation Coal 6482
Machine cleans safety lamps quickly..*536
Maintenance *523
Management *487
Merchandising *533
Mine drainage *497
Mining methods *489
Placing lead-lined pipe in 560-ft. drill-hole *220
Preparation *502
Pure wash water reduces breaker maintenance costs *204
Reconditions burned mine shaft and erects water column 300
Safety *518
Starter broadens use of squirrel-cage motors *537
Steel flumes carry water over surface cracks *163
Stores *529
Stripping *495
Transportation *506
Treated timber *489
Ventilation *509
Lehigh Valley Coal. Electrification trends. J. H. Edwards *283
Lillybrook Coal Co. Development work increasing 428
Linton-Summit Coal Co. Holding track on hills *87
Lorado Coal Mining. Belt conveyor handles checks *425

M

Madeira Hill. Electrification trends. J. H. Edwards *283
Markle-Bullers Coal Co. Keeping sand pipes free from water 87
Mary Helen Coal Corp. Car greasing equipment pays for itself in a year *424
New layout cut sand job to a minor item.*466
McKeesport Coal & Coke Co. Wins decision in gob fire case 396
Monongahela Rail & River Coal Corp. New mine opened 46
Montevallo Coal Mining Co. To open new slope 277

N

National Fuel Co. Puritan tipple designed for later removal to new mine. Samuel Tescher *16
New Jellico Coal. Check valve *301
Trolley support shift with track *383
New River Co. Pumping project reduces drainage cost and improves water supply. J. H. Edwards *109
Northern Colorado Coals. Coal advertising campaign 391

O

Oak Hill Colliery. Dewatering overlying bed at southern anthracite mine. T. M. Dodson *330
Ohio & Pennsylvania Coal. Signal systems prevent errors in skip hoisting *298

P

Panther Creek Coal Co. Orders 100 mine cars 435
Pennsylvania Coal & Coke Corp. Primary starting of converter adopted to utilize automatic board *162
Redesigned hairpin connection offers greater protection *467
Perry Coal Co. Bit bucket designed for hard use *426
Hard surfacing increases bit life. Walter Baum *411
Philadelphia & Reading Coal & Iron Co. Coal mass conducts current to bin level indicator 222
Ship anthracite to Italy 98
R. E. Taggart named to head company .*468
Pine Hill Coal Co. Dewatering overlying bed at southern anthracite mine. T. M. Dodson *330
Pittsburgh Coal Co. Dewatering coal after washing. Barley & Parmley .*407; pt. 2 458
Pocahontas Fuel Co. Tire welding practice.*218
Pond Creek Pocahontas Co. Borehole job featured by lead cable and supports .*219
Conveyor belting constitutes dust seal for screens *384
Pressure grouting protects headings under creek bed *235
Shaft heating meets the test of winter operation *289
Split yoke ammeter test indicates accuracy 382
Synchronous motor for ventilating fan saves $1,000 per month *266
Pyramid Coal Corp. "Circle haulage" increases strip loading unit utility *21

R

Reid Coal. Automobile wheel cuts cost of trolley base *301
Supply loss reduced by prop hole *466

S

St. Clair Coal Co. Safety minded men key to anthracite mine record *13
St. Paul Coal Co. Purchases Har-Mar mine 46
Scranton Coal Co. Receives RFC loan .. 385
Standard Coal Co. Wheatland mine equipping for air shooting *118
Star Coal & Coke Co. Deepwell turbine pumping solves drainage problem ..*377
Sullivan Trail Coal Co. Clear Spring colliery to receive new breaker 428
Susquehanna Collieries. Electrification trends. J. H. Edwards *283
Prorating curbs bootlegging 386

T

Templeton Coal Co. Hitch drilling speeds entry timbering *237
Tennessee Jellico Coal Co. Pipe employed for smooth curve in trolley wire 124

U

Union Colliery Co. Electric shifter moves cars in Kathleen yard *34
Mechanization of loading started in 1922, now completed *240
Union Collieries Co.
Preparing Thick Freeport for meticulous market *10
Renton mine increases voltage and saves power by moving generator sets forward. A. L. Lee *101
Union Pacific Coal Co. First aid meet ..*348
New bonus system adopted 98
Old Timers' Assn. parade and dine 347
Records of new ventilating system 156
Ventilation improves with power input reduced. C. E. Swann *23
United Electric Coal Co. Transfer chutes facilitate continuous loading *220
Wet preparation lifts handicap on small coal *197

W

Walker's New River Mining Co. Company required to discontinue trade name by court 476
West Virginia Coal & Coke Corp. Omar power plant to return investment cost in four to five years. J. H. Edwards .*365
Wheeling Township Coal Mining Co. Power plant investment will pay out in three years *115

AUTHORS' INDEX

BAUM, WALTER. Hard surfacing increases bit life *411
Barley, S. B., and S. M. Parmley. Wet washing brings dewatering to fore *407, pt. 2 458
Barrett, A. L. Aero-mechanics sheds new light on ventilation of mines..*447
Biesecker, A. S. Improving power factor reduces power cost and promotes efficiency *149

DODSON, T. M. Dewatering overlying bed at southern anthracite mine.*330

EAVENSON, HOWARD N. Stream pollution again a live issue in Pennsylvania 195
Edwards, J. H. Anthracite electrification trends *283
Changes in methods in crease crew output 75 per cent at Carbon Fuel..*191
Conveyor mining brings new lease of life to southern Appalachian mine*143
Omar power plant investment will earn 20 to 25 per cent.....*365
Preparation centralized in Van Lear plant *413
Pumping project cuts cost; improves water supply *109

FINCH, J. W. Mine safety results close to record of 1933 73

GIVEN, IVAN A. Clinton conveyor plan designed for maximum flexibility.*104
High tonnage assured by mechanical loading plan at Knox Consolidated Mines *3
Lehigh Navigation program improves haulage *403
Sealing methods give protection against water breaks *373
Wide safety gains at Knox Consolidated mines *183
Grimm, B. F. Battery or cable reel? Two types of locomotive haulage..... 327
How to determine storage battery costs *417
Locomotive tests prove value of automatic protection *368

HALL, R. DAWSON. Dragline excavators widen casting opportunities in anthracite strippings *25
Harrington, D. Safety record better despite increasing hazards *295

KRAFFT, F. A. What can industrial relations departments do for coal? 450

Lee, A. L. Voltage increased; power saved by Renton survey *101
Leitch, R. D. Sealing of coal mines reduces acidity of water flow *323
Luxton, W. H. Mining lubrication..... 436

MONTGOMERY, W. J. How to check ventilation practices.....pt. 3 *211
What about the fan in mine ventilation? *291
What fan tests show in mine ventilation *335

PARMLEY, S. M., and S. B. Barley. Wet washing brings dewatering to fore *407; pt. 2 458
Pye, H. Walter. Artificial respiration by Nielsen method *339

ROBINSON, CAREL. Securing teamwork between men and management in mining 453

SMITH, E. A. Worms and fishes..... 436
Swann, C. E. New fan and shaft improve ventilation and cut power at two Union Pacific Coal Co. mines.... *23

TESCHER, SAMUEL. Puritan tipple designed for later removal to new mine *16
Todhunter, Richard T. Conveyor system at Barnesboro mines lowers loading and other costs *19